

## The Strategies and Actions of China's Breakthrough in Overcoming Overseas Technology Blockades

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### "Made in China 2025" and Technological Blockades

Launched in 2015, *Made in China 2025* aimed to enhance China's manufacturing competitiveness, with a focus on strategic sectors such as semiconductors, artificial intelligence (AI), and quantum computing. However, since 2018, the US has intensified its technology restrictions on China, while the EU has reinforced its de-risking strategy to reduce reliance on China and protect critical technologies. As a result, China can no longer depend on foreign investment and technology imports to drive rapid development. Instead, it must adopt new strategies to navigate and overcome these technological barriers.

This paper explores how China has employed a multifaceted strategy—strengthening domestic innovation, advancing indigenous research and development, and expanding international collaboration—to overcome technological barriers and sustain its position in the global technology race.

### Overseas Technology R&D and Research Cooperation Strategies

To counter technological blockades, Chinese firms have actively pursued global expansion, primarily through cross-border acquisitions aimed at accessing to advanced technologies. However, in recent years, the US and the EU have tightened their oversight of Chinese mergers and acquisitions, limiting these firms' ability to acquire foreign technological assets. In response, many Chinese companies have shifted their strategy by establishing overseas R&D centers, enabling them to tap directly into local technological ecosystems and talent pools.

In 2024, leading Chinese tech firms such as Alibaba, Meituan, and ByteDance established R&D centers in Silicon Valley, California, as part of their efforts to access cutting-edge U.S. AI technologies. These firms have been actively recruiting AI talent, including professionals from prominent firms such as OpenAI. At the same time, international industry-academia collaborations are deepening. For instance, Huawei has partnered with the University of Cambridge in the UK to establish the Cambridge Optoelectronics R&D Center, with a focus on next-generation 6G communication

technologies. Similarly, Jiangsu Kandi New Composite Materials Group has joined forces with the Technical University of Munich in Germany to launch a European R&D center dedicated to automotive lightweight composite materials.

### **Official International R&D Cooperation**

The Chinese government is actively advancing international frameworks for scientific and technological cooperation, including bilateral and trilateral partnerships with the EU, Germany, and Japan-South Korea. In November 2024, during the 16th Joint Steering Committee on Science and Technology Cooperation, the EU and China agreed on a *Joint Roadmap for the Future of EU-China Cooperation in Science, Technology, and Innovation*. However, tangible progress has been limited. The scope of EU-China collaboration remains narrow, primarily restricted to non-sensitive fields such as food, agriculture, biotechnology, and climate change.

In contrast, China appears to prioritize bilateral or trilateral collaborations. The Germany-China Innovation Policy Platform supports high-level dialogue, talent development, and joint R&D initiatives, with a strong emphasis on smart manufacturing and green transformation. Meanwhile, in May 2024, China, Japan, and South Korea signed the China-Japan-South Korea Intellectual Property Cooperation Decade Vision Joint Statement in Seoul, setting out strategic directions for future cooperation and signaling a significant step toward strengthening regional innovation.

### **The "Belt and Road" Technology Corridor**

China is actively promoting the construction of the "Belt and Road" Technology Corridor, with a strategic focus on key areas such as deep space exploration, disaster prevention and mitigation, and environmental protection. By developing cross-border fiber-optic networks and establishing joint laboratories, China is fostering the cultivation of scientific and technological talent and facilitating technology transfer. In addition, China is collaborating with Southeast Asian countries to build regional data centers, strengthening digital infrastructure.

In summary, China has adopted a comprehensive strategy to overcome international technological blockades and enhance its innovation capacity. This includes shifting from reliance on mergers and acquisitions to deeper industry-academia collaboration, establishing R&D centers in global tech hubs, and expanding international cooperation. While engaging in EU programs in non-sensitive areas, China is also promoting the "Belt and Road" Technology Corridor and advancing a

more proactive intellectual property strategy to integrate its technologies into global standards. Together, these efforts illustrate China's adaptive approach to building technological self-reliance under external constraints.

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